DUKE POWER'S

RESPONSE

TO BARRINGTON-WELLESLEY

GROUP'S

REPORT TO THE

PUBLIC SERVICE COMMISSION OF SOUTH CAROLINA

DECEMBER 10, 2003

A. Introduction

Just over a year ago, on December 4 and 5, 2002, a major ice storm (the "December 2002 Ice Storm" or the "Ice Storm") hit the Carolinas causing a loss of power to nearly 2 million electric customers. Nearly 1.4 million of those electric customers were Duke Power Company ("Duke" or the "Company") customers, including approximately 333,000 Duke customers in South Carolina. Relying on its own resources and those of 18 other states and the District of Columbia, Duke was able to restore power to all its South Carolina customers by midnight Wednesday, December 11, 2002.

In January 2003, the Public Service Commission of South Carolina (the "Commission") ordered an independent management audit of Duke's response to the December Ice Storm and its preventive maintenance practices. The Commission selected the Barrington-Wellesley Group ("BWG" or the "Auditors") to conduct the audit. Between August 4, 2003, and October 27, 2003, Duke responded to numerous data requests from the Auditors, and arranged for numerous employees to be interviewed by the Auditors. Duke also conducted presentations on various issues for the Auditors and arranged for a number of visits to various Duke facilities by the Auditors. In late November 2003, BWG submitted its report (the "Report") to the staff of the Commission. Duke appreciates the opportunity to hereby respond to the findings, conclusions and recommendations in the Report.

B. Executive Summary of Duke Power's Response

The December 2002 Ice Storm was an extraordinary storm, and Duke believes it met that extraordinary challenge. The Company cooperated fully, openly and honestly with the audit request and agrees with the following findings of the Report:

- "Duke Power made an excellent tactical response to the December 2002 ice storm." (page III– 10)

- "Duke began preparation several days ahead of the storm by alerting key personnel with advance weather warnings, holding emergency response team conference calls, contacting the Southeastern Electric Exchange (SEE) for outside assistance, and staging crews in field locations." (page III – 10)

- "Duke is one of the few utilities with its own meteorological staff." (page III – 10)

- "The supply chain worked efficiently. Duke experienced no difficulty acquiring the vast quantity of materials and tools needed to make repairs … " (page III – 11)

- "… Consistent with the best practices of electric utilities, Duke's response to the December 2002 ice storm was led by a fulltime emergency preparedness manager." (page III – 11)

- "Duke uses an appropriate restoration priority sequence … " (page III-12)

- "Safety was emphasized throughout the nine-day restoration. Personnel and public safety was effective, even in face of the fact that thousands of linemen and right of way workers were engaged in the restoration." (page II-1)

- "Most government agencies and emergency preparedness entities were satisfied with the communications from Duke during the storm. Representatives from the State, counties and cities reported that Duke communicated with them to their satisfaction and provided alternate contact through established relationships with the Company's District Managers." (page III – 17)

- "The South Carolina Emergency Management Division office indicated that Duke was responsive in providing numbers of customers out of power, was open to their suggestions about restoration priorities, and provided timely information that was needed by the collective agencies in managing emergency situations." (page III-17)

- "Duke Power's electric distribution design and construction standards are well written and complete. … Moreover, Duke's electric distribution system appears to have been constructed in accordance with the Company's standards and specifications." (pages V-2 and V-3)

- "Duke Power's distribution system has been designed in accordance with the National Electrical Safety Code (NESC) for medium ice loading criteria. According to the NESC, most of South Carolina is classified as a "Medium Loading" area, wherein the NESC recommends consideration of one quarter of an inch of ice in the utility's design criteria. The coastal tip of South Carolina is a 'Light Loading' area, where no ice is expected." (page V-3)

- "Duke Power's pole reinforcement program is a good practice. … Duke Power has an effective cable replacement program." (pages V-6 and V-9)

- "Duke Power has an effective cable replacement program." (page V–9)

- "Duke Power has an extensive overhead distribution system that cannot economically be converted to underground." (page V - 10)

- "Duke's customer services department has a comprehensive plan for dealing with emergencies." (page VI-3)

- "Duke's customer service organization is structured appropriately and roles and responsibilities are clearly defined." (page VI-7)

- "Duke has established an excellent training program for customer service specialists newly hired into the organization. … Duke's customer service performance measures are appropriate and typical of other utilities in the industry." (pages VI-12 and VI-14)

Duke Power reviews storm preparation and outage response after each storm to ensure continuous improvement. Duke followed this practice and conducted a self-assessment after the December 2002 Ice Storm. Through this effort, Duke identified a number of opportunities to improve its processes and practices and, accordingly, has already completed or begun initiatives to achieve such improvement. A number of the completed initiatives are among the recommendations of the Report. They are:

- A new outage management system designed to provide more accurate numbers of outages by county (effort began in Fall 2002) for providing more specific customer information

- Enhancement of the existing process of assessing and assigning resources

- Enhancement of the existing process of communicating with local emergency planning officials more proactively and assigning county communicators to serve as single points of contacts in key areas to coordinate the flow of information between Duke and the assigned organization

- Enhancement of Duke's voice response unit to include telephone number, social security number and account number as customer identification options.

- A Spanish speaking voice response unit to automate the capability for Spanish speaking customers to report outages

- Enhancement of Customer Contact Center staffing plans to include enhanced risk mitigation which includes increased staffing earlier during a major storm or other outage event

In addition to such initiatives, Duke has reliability and maintenance programs in place to minimize power outages.

As previously noted, Duke agrees with several findings of the Report. The Company, however, disagrees with a number of findings, conclusions and recommendations reached in the Report. The following is a summary of some selected findings, conclusions and recommendations and Duke's corresponding responses:

Audit Report: While Duke took the initiative to develop lessons learned, the Company may not have adequately followed through. (page III – 18)
Duke's Response: Following the storm, Duke Power performed a comprehensive self-assessment of its response to the Ice Storm. More than 98 percent of the action items from the assessment have been completed. Many of those plan enhancements were tested and proven effective in the February 2003 ice storm and in the response to Hurricane Isabel.

Audit Report: Revise employee incentive compensation measures in order to increase emphasis on system reliability. (page IV – 5)
Duke's Response: The Employee Incentive Program is a component of the overall incentive package for Power Delivery (including Electric Distribution) employees. Duke Power also uses a "scorecard system" in Power Delivery (including Electric Distribution), which is directly linked to sustainable base pay, and is effectively utilized to drive departmental objectives such as system reliability.

Audit Report: Develop and implement a comprehensive manpower-planning program. (page IV-14)
Duke's Response: Duke Power has a comprehensive resource planning program and work management systems. These allow maximum flexibility in managing large cyclical workloads throughout the year.

Audit Report: Reevaluate the South Carolina electric distribution system capital and O&M budgets and avoid any future cost control efforts until system reliability indices improve. (page IV-14)
Duke's Response: As shown in the Report, Duke's distribution system spending actually increased from 1998 through 2002. During that time period, South Carolina's operations and maintenance (O&M) expenditures have grown at 8.5% (excluding the 2002 ice storm costs) while South Carolina capital expenditures have grown at almost 12%. During this same period, customer growth in South Carolina was 7% and reliability indices showed a positive improvement trend.

Audit Report: Determine the root causes of the recent decline in electric system reliability. (page IV – 14)
Duke's Response: An analysis of the reliability indices graphs shown in the Report actually reflect that there is a general long-term reliability improvement occurring on both the entire Duke system and in South Carolina.

Audit Report: Develop and install a SCADA system to include all major distribution substations. (page V – 5)

Duke's Response: While Duke does not have SCADA on its distribution system, it derives many of the same benefits of SCADA identified in the report from its current data acquisition system. The combination of Duke Power's distribution substation alarm system and customer telephone calls provides prompt notification of outages.

Audit Report: Duke Power has not adhered to its ten-year pole inspection program that is specified by Company distribution standards. (page V – 5)
Duke's Response: Since mid-1998, Duke's pole inspection program has called for a 12-year cycle for pole inspections. Since 2000, Duke's goal of inspecting poles has been met each year on a system-wide basis. Further, the annual rejection rate under this cycle has been approximately 1.5%.

Audit Report: Reduce the cycle time of tree trimming to four years. (page V – 19)
Duke's Response: Duke's current vegetation management practices are reasonable, cost effective and support the provision of reliable service at reasonable rates. A cycle trimming program for vegetation management is a one-dimensional approach and fails to consider important factors such as circuit performance, width of right-of-way, etc. By focusing on reliability data versus a time based cycle approach, Duke is able to systematically perform right of way maintenance that provides the maximum benefit in terms of reliability and efficiency.

Audit Report: Determine the optimum staffing required in the customer call center in order to achieve an appropriate level of service to Duke's customers. (page VI – 19)
Duke's Response: Duke operates its call center with optimum staffing levels. Duke has consistently improved customer service levels by following best practices in the call center industry. Since 1999, the percentage of calls answered in less than 30 seconds has moved in a generally upward positive trend. Duke has implemented several technology improvements enabling the automation of many routine customer requests, which has simplified several work processes. These actions have improved Duke's effectiveness and efficiency.

Duke addresses these and other findings, conclusions and recommendations in more detail in the following section of its response.

C. Duke Power Company's Response to Findings, Conclusions and Recommendations

Audit Finding: The outage management system that was in existence at the time of the December 2002 ice storm was inadequate, as were the processes for resource assessment and for developing and disseminating accurate estimates of service restoration times to the customers. (Chapter III -1)

Duke's Response: During the Ice Storm, Duke Power's outage management system performed extremely well (operating at an average of 1,000 transactions per minute) and did everything it was designed to do. Duke Power is unaware of any outage system used

by any utility that can accurately predict estimated times of restoration (ETORs) for major events of the magnitude of the Ice Storm. Before developing accurate ETORs, Duke must make physical damage assessments and cannot begin assessments until conditions are safe. Notwithstanding the limitations of ETOR determination, in a self-assessment performed by Duke after the storm, Duke determined that ETORs and Resource Assessment processes could be improved. The Company, therefore, has initiatives underway to accomplish these goals.

Audit Finding: Duke may have understated the expected impact of the storm in its initial internal communications. (Chapter III - 2)

Duke's Response: At the time of the ice storm, Duke Power categorized storms into four levels – 1, 2, 3 and 4, with 4 being the highest level. Duke Power prepared for the highest level of storm when preparing for the ice storm. State-of-the art forecasting models provided the most accurate meteorological information available. Pre-storm estimates of total outages are based on prior experience, and the expected magnitude of the approaching storm. Weather forecasting and the ability to predict power outages due to severe weather are inexact sciences.

As a direct response to the December 2002 ice storm, Duke Power has re-written its Emergency Classification procedure for weather events that now identifies six levels of activation. The highest level is a Level 6 Storm. Within the procedure, a Level 6 Storm is considered a catastrophic system event with more than 750,000 customer outages, and a restoration time of 8-14 days or greater.

Audit Finding: Duke did not have pre-determined estimates of the number of scouts needed by zone. (Chapter III - 3)

Duke's Response: The audit report recommended Duke identify a process to assign scouts and field team leaders to specific areas and pre-stage these resources ahead of major events. Duke has a zone-by-zone emergency management plan that was followed during the storm restoration, which included assignment and pre-staging of scouts where appropriate. Following this process, scouts were pre-identified and assigned to locations across the service area. Additional scouts were acquired both internally and externally due to the magnitude of the storm.

Audit Finding: Adequate lines of communication between Duke and emergency services agencies were not established early enough to effectively manage the initial stages of the storm. (Chapter III - 4)

Duke's Response: Duke implemented its internal and external communications plan beginning the week of December 2, 2002. Duke began communicating with local and county governmental contacts about storm preparation as early as Monday, December 2, 2002, and continued communications throughout the storm. Communications were active at the state level, local level and customer level.

As part of Duke's internal self-assessment and lessons learned process, an initiative to more proactively communicate with key emergency planning officials has been implemented in subsequent storm restoration events. In addition, regional storm preparedness meetings were held throughout Duke's service area during the fall season with local officials, emergency planning officials, fire, police and rescue personnel and members of the media. A new role, county communicator, is also staffed during major restorations to coordinate the flow of information between Duke and specific organizations (including county emergency operations centers, other county municipal organizations, school systems, etc.)

Audit Finding: While Duke took the initiative to develop lessons learned, the Company may not have adequately followed through. (Chapter III - 5)

Duke's Response: This finding is incorrect. Following the ice storm, Duke performed a comprehensive critique of the storm. Feedback was received from many employees who worked the storm, as well as external customers. The effort was well coordinated and documented. More than 98 percent of the action items from the critique have been completed. The remaining two percent (longer term projects) are scheduled for completion in 2004. Duke disputes the conclusion that lack of document retention indicates a lack of thoroughness in the self-assessment.

Because pole inspections and vegetation management are addressed in the ordinary course of business, Duke's self-assessment after the storm did not focus on these areas.

Audit Finding: Duke has made a number of changes in the organizational structure of its electric distribution organization regarding system ownership, responsibilities and objectives during the late 1990's and early 2000's. (Chapter IV – 1)

Duke's Response: The area-based organization that currently exists is very effective at driving accountability and ownership in the operation of the distribution system. Duke will maintain this organization unless there is evidence that a different organizational structure will improve efficiency and performance.

Audit Finding: Employee incentive compensation programs for Duke's electric distribution personnel favor earnings over reliability. (Chapter IV – 2)

Duke's Response: Duke's Employee Incentive Plan (EIP) allows employees to share in the overall success of Duke Power and Duke Energy, and it is the company's philosophy to share overall successes with employees. EIP measures encourage every employee to work in support of business unit and operational goals, which in turn support corporate goals, and can result in an EIP reward. The majority of Power Delivery (including Electric Distribution) employees participate in the EIP. In addition, the EIP is one component of the overall incentive package for employees with greater responsibility for system performance and operations.

Duke's Power Delivery department uses a scorecard system of operational measures to motivate employees in specific performance areas, such as reliability. Consistent with the audit report recommendations, Duke already uses the scorecard system to emphasize system reliability. The scorecard system includes operational objectives at a personal and team level, and employees are evaluated on these measures. The scorecard system is directly linked to sustainable base pay. Such a linkage to base pay provides a powerful and very effective incentive to ensure focus on key areas of responsibility. The Power Delivery balanced scorecard system delivers exactly what is recommended under recommendation 2 as stated below:

"Develop a more balanced approach to promoting revenue and earnings, controlling costs and providing the highest practical quality of service to customers."

The scorecard system provides a targeted, balanced approach that ensures focus is delivered uniformly to all aspects of power delivery.

"Develop employee incentive compensation measures that place greater emphasis on system reliability."

The scorecard system places significant emphasis on areas of importance by team and contributor. For example, two-thirds of the measures for the Reliability and Integrity Coordinators are specific to reliability. Likewise, a Service Coordinator would have more service-related goals. This approach is much more effective than a broad general objective over which individuals have little control.

"Reserve earnings per share and earnings before interest and taxes goals for only the highest levels of the organization."

The scorecard system does not include earnings per share or earnings before interest and taxes, even at the highest level. The EIP program, as noted, rewards employees for Company success as measured by EPS and EBIT.

Audit Finding: Staffing levels for Duke's electric distribution organization are not adequately based upon quantified data. (Chapter IV – 3)

Duke's Response: Duke has staffing levels based on quantified data.

Duke's Power Delivery (including Electric Distribution) fully recognizes the importance of workforce planning and has taken steps to enhance the ability to improve customer service and efficiency of delivery by having a comprehensive Resource Management approach. We begin with a projection of work and develop a work plan. The work plan is then staffed with Duke employees and contractors. Workforce needs are continually evaluated and adjusted based on current work plans.

Resourcing reviews are based on multiple criteria to include: historical unit volumes, customer growth forecasts, budget and workload data. Resource plans are built with the flexibility to adjust to ever-changing conditions such as the following:

- Storms and emergencies (on and off system) that take crews away from daily completion of scheduled work
- Storms that create follow up work
- Inclement weather delays
- Unexpected costs that have negative impacts on the remaining budget
- Contractual issues such as contractors defaulting on an existing contract, etc.
- Changes in the customer growth forecast
- Cyclical nature of certain types of work

Through the Resource Management team, labor strategies are identified and put into place to optimize the various labor possibilities including both the Duke and contract workforce. Our current strategies include the following components:

- Maintain a base level of highly skilled Duke workforce
- Utilize multiple contractors to ensure competitive pricing, add flexibility, and reduce risk
- Match skills to work to optimize efficiency of delivery
- Leverage contract management and contract administration to ensure quality and effectiveness
- Benchmark with peer utilities to ensure top performance and continuous improvement

Region Resource Analysts are responsible for implementing "best practice" labor strategies to deliver service to their customers and to effectively maintain the electrical system in their geographic area. These employees monitor workload through a variety of sources and make decisions that ensure crews are available to complete the work plan.

Management utilizes unit costs to measure productivity and efficiency. Examples include cost per customer added, lighting repair cost and cost of a routine order. Duke believes its robust measurement system has allowed management to significantly lower cost and improve quality.

For management and professionals, the Company utilizes a succession planning approach when considering future needs. The organization design is matched with predicted work requirements to quantify the employees needed. Employees are provided various developmental opportunities to ensure their readiness to fill key positions.

There are multiple ways to perform manpower planning, and Duke's approach is highly efficient, flexible and effective.

Audit Finding: Since the early 1990's, Duke exercised cost control and reduction policies that may have resulted in less than adequate funding of its South Carolina electric distribution system. (Chapter IV – 4)

Duke's Response: There is no basis for the conclusion that funding for the South Carolina electric distribution system is less than adequate. The observation that cost control and reduction policies may have resulted in less than adequate funding is incorrect. As indicated in the audit detail, Duke's electric distribution spending actually increased from 1998 through 2002. South Carolina's operations and maintenance (O&M) expenditures have grown at 8.5% (excluding 2002 ice storm costs) while South Carolina capital expenditures have grown almost 12% from 1998 to 2002. During this same period, customer growth in South Carolina was 7%.

O&M budgeting and expenditures are not funded by state jurisdiction; rather, expenditures fund the needs of the entire electrical system. O&M spending as a percentage of Duke Power's distribution system in S.C. has consistently been higher than the percentage of South Carolina customers to total customers. Likewise, capital budgets and expenditures have tracked with the ratio of South Carolina customers to total Duke customers.

The comparison of electric distribution costs to total Duke Power spending yields an inaccurate conclusion. Components of total Duke Power spending include significant items such as fuel costs, one-time amortizations, enhancements to air quality at power plants, etc. For example, fuel costs have increased appreciably while maintenance costs have remained steady. Some of the larger expenditures such as these are often cyclical and therefore are not comparable from year to year. Placing these costs in an annual comparison results in an incorrect conclusion based on a finding that spending is down relative to other costs. As the audit detail clearly states, spending in both O&M and Capital has actually increased throughout the review period.

Audit Finding: The reliability of Duke's electric distribution system declined in 2002 following several years of improvement. (Chapter IV – 5)

Duke's Response: The reliability of Duke's electric distribution system is measured by standard utility reliability indices -- SAIFI, SAIDI, and CAIDI. SAIFI measures outage frequency, CAIDI measures outage duration and SAIDI is a reflection of duration and frequency.

An analysis of the SAIDI and SAIFI graphs from the audit report actually shows that there is a general long-term reliability improvement occurring on both the entire Duke System and in South Carolina. Over the past four years, Duke has demonstrated that reliability can improve without significantly increasing costs.

The year-to-year variability in Duke's reliability comes mainly from weather. Despite the exemption of major event data, the data includes enough weather events to create variability. For example, medium-sized events that affect less than 10% of system customers (210,000 or less customers), and local events such as tornadoes and severe thunderstorms are NOT exempted from these indices.

Weather factors in 2001 were minimal compared to 2002. In 2001, there were very few medium or local events as compared to 2002. This fact is validated both by lightning strike data, and the Southeastern Electric Exchange (SEE) 2002 Reliability Survey. When comparing the reliability indices for all SEE companies from 2001 to 2002, SEE member utilities, in general, experienced a 12% increase in reliability indices in 2002 over 2001. This increase was a direct result of more severe weather in the Southeast in 2002 over 2001.

Audit Finding: Duke Power's design and construction standards may have prevented the distribution system from being optimally prepared for the December 2002 ice storm. (Chapter V – 1)

Duke's Response: Duke disagrees with this conclusion that its design and construction standards may have prevented the distribution system from being optimally prepared for the Ice Storm. Accordingly, Duke disagrees with the recommendation that designing the distribution system to National Electric Safety Code (NESC) heavy icing and ASCE standards would make it more resilient to tree damage. The standards are designed to build a system that would be resilient to ice and wind loading, not to damage associated with falling trees. Duke's current design standards meet NESC requirements for our geographic service territory, and Duke sees no need to change our standards based on the following:

- Duke has no evidence to support, and the auditor provided no evidence, that damage during the Ice Storm was attributable to ice loading on poles/wires, rather than by falling trees.
- Changing the standard (i.e., increasing the costs of our asset base and thereby potentially increasing electric rates) without supporting evidence of the need and benefits would be unreasonable and not in the best interests of our customers.
    - The increased cost would be driven by the requirement for much larger poles, cross-arms and associated hardware, plus the increased labor required to install and maintain this equipment.
- The IEEE paper "Structural Loading Calculations of Wood Transmission Structures" referenced in the audit report refers to ice and wind loading on transmission structures, which have significantly longer span lengths and pole heights than our distribution system. The pole height/class and the limited span lengths of our distribution system design standards inherently limit the impact of wind and ice loading.
- Concluding that the only reason less storm damage occurred to Duke's transmission versus Duke's distribution system is due to the differences in ice and wind loading design standards fails to take into consideration critical differences between the systems.

Audit Finding: Duke Power is not adequately applying modern technology monitoring and controlling its distribution substations. (Chapter V – 2)

Duke's Response: Duke disagrees with this finding and the recommendation that Duke develop and install a SCADA system to include all major distribution substations. Duke has extensive data acquisition systems including remotely read transformer bank meters, digital relays with remote communications capability, alarms on distribution breakers for outage notification, etc.

While Duke does not have SCADA on its distribution system, it derives many of the same benefits of SCADA identified in the audit report from its current data acquisition systems. During both smaller scale outages and major storms, the combination of Duke's distribution substation alarm system, telephone communications to the Transmission Control Center (TCC), Outage Response Center and customer telephone calls provide prompt notification of outages.

Nationally, the most cost effective utilization of SCADA has been in either power factor (VAR management) or voltage management. With Duke's system analysis programs and extensive use of locally controlled capacitors and voltage regulators, we have not found cost justification for the minimal incremental benefit of automated control that SCADA would provide.

Duke's current data acquisition systems use an alarm system via telephone communications to our Transmission Control Center (TCC) and our Outage Response Center. The alarm provides 24/7 notification to these centers of outages within Duke's distribution substations which dispatches crews to investigate. This system also provides substation power transformer condition data on a remote basis. More than 75% of Duke's substations are presently equipped with this system with the remaining substations being equipped during substation upgrade.

Duke continues to follow SCADA technology and other technologies which may provide future cost, reliability, system efficiencies, or safety improvement. By continuing to insist on solid, well-documented business case justifications for future installations, Duke has and will continue to be prudent with the utilization of its capital expenditures on behalf of its customers.

Audit Finding: Duke Power has not adhered to its ten-year pole inspection program. (Chapter V – 3)

Duke's Response: Until mid-1998, Duke had a 10-year cycle for pole inspections. In mid-1998, Duke adopted a 12-year cycle for pole inspections. This change was adopted because of the positive results achieved with the use of CCA treated poles. Since 2000, Duke's goal of inspecting poles on a 12-year cycle has been met each year on a system-wide basis. Further, the annual rejection rate under this 12-year cycle has been approximately 1.5%. As previously noted, Duke's distribution maintenance practices are generally developed and implemented on a system-wide basis rather that a state-by-state basis making judgments based on one state inappropriate. In terms of reliability improvement, pole and cross-arm decay represent less that 1% of total outage minutes on

the Duke system. An increase in the frequency of pole inspections would have very little impact on overall system reliability.

The audit report states Duke did not perform a formal failure analysis of distribution poles following the Ice Storm. However, Duke did perform an informal analysis and found no correlation between the age of the poles and the damage incurred. This is supported by the audit report, which states "Duke replaced approximately 3200 distribution poles during the December 2002 ice storm. BWG determined that, in South Carolina, deteriorated pole failures did not significantly contribute to outages during the ice storm" (reference V -7) Therefore, Duke disagrees with the recommendation that the Company should increase the frequency of distribution pole inspections.

Audit Finding: Duke's current vegetation management practice could contribute to future reliability problems. **(**Chapter V – 4)

Duke's Response: Duke disagrees that its current vegetation management practice could contribute to future reliability problems and disagrees with the recommendation that Duke should reduce the cycle time of the tree trimming program to four years. There is no basis for this finding. Duke's current vegetation management practices are reasonable, cost effective and support the provision of reliable service at reasonable rates.

There is no industry adopted standard for tree trimming cycles. In 2002, Duke began to use a vegetation maintenance modeling program designed to optimize trimming based upon the historical vegetation related reliability performance of circuits. This program has resulted in increased funding in South Carolina for vegetation management activities on the distribution system. This system determines the optimal time to trim a circuit based on the characteristics of the vegetation on the circuit, customer density and geographic considerations based upon their impact on the reliability of the circuit. Circuits with few trees or sparse vegetation will have longer "trim cycles" than circuits that run through backyards of urban neighborhoods where vegetation is more dense and clearances have traditionally been harder to obtain from the property owners. Annually, Duke removes danger trees and dangerous overhang from main feeders, which essentially accomplishes a mid-cycle trim as noted in the audit report.

A cycle trimming program for vegetation management is a one-dimensional approach and fails to consider important factors such as circuit performance, width of right-of-way, etc. By focusing on reliability data versus a time based cycle approach, Duke is able to systematically perform right of way maintenance that provides the maximum benefit in terms of reliability and efficiency. A number of other utilities are using this same approach to vegetation management. Some examples are: Northeast Utilities, American Electric Power, Oklahoma Gas and Electric and Pennsylvania Power and Light.

The audit report states that a number of studies have been performed that state the optimal tree trimming cycle is four years and make a recommendation of a four-year trim cycle. However, as a basis for this recommendation, the audit report only references an EPRI report done for Detroit Edison which is specific to its system only, and an Illinois Commerce Commission directive. Given differences in the distribution systems and geographic locations, the EPRI report is not necessarily transferable to Duke's South

Carolina service area. Likewise, the commission directed cycle in Illinois is not necessarily transferable to South Carolina.

Duke does not keep track of the types of problematic trees in its service area, does not track the annual growth rate of problematic trees, and does not count the numbers of trees along its lines and rights of way because Duke sees little or no value in this effort. The tracking of species and locations is done primarily in California where utilities are under onerous regulatory requirements to prevent any tree from coming within 18" of any power line. This environment requires the utilities to keep track of trees by species and have trim cycles of 12-14 months. While some utilities in other parts of the country may track trees, Duke is not aware of other comparable utilities in the Southeast that do so. Tracking of trees as proposed by the audit report would not provide significant benefit compared to the cost of identifying all the trees and maintaining the data.

The audit report states that appropriations for South Carolina have not kept pace with those of the Duke Power system overall. Duke allocates right of way funding at a system level based on individual circuit performance and other factors. Nevertheless, right of way spending during the study period has increased by 54% in South Carolina and reliability indices show a positive improvement trend, comparable to North Carolina, as can be seen in Exhibit IV-10 in the audit report.

Audit Finding : Duke Power should conduct an internal audit of the security fences of all of its substations and bring the security fences for each substation into compliance with the NESC. (Chapter V – 5).

Duke's Response: Duke conducted an audit of its fences at all transmission and distribution substations during the first quarter of 2001 to ensure that the fences met the NESC requirements effective at the time they were built. Duke has completed upgrades to all fences that did not meet the applicable NESC requirements in place when they were constructed. Duke is also voluntarily upgrading fences to meet the current NESC requirements over the next five years or as part of any significant improvement in a substation, whichever is sooner.

Audit Finding: Duke Power should develop a plan for implementing an under frequency load shedding program. (Chapter V – 6)

Duke's Response: Duke does not agree with the recommendation that it adopt a distribution under frequency load shedding program on the basis that is not beneficial and is unnecessary. Duke currently has a transmission level over/under frequency load shedding protection system. Duke believes this system provides adequate protection in the event that the transmission and generation systems become fragmented. Additionally, Duke's system emergency manual includes a section on how to respond to over/under frequency conditions.

Audit Finding: Duke's customer service organization was not adequately prepared for the December 2002 ice storm. (Chapter VI – 1)

Duke's Response:
The Customer Contact Center's staffing plan for the December storm required an initial increase in staffing (beyond the normal staffing levels) beginning late December 4 and ramping up to a significant increase by daybreak December 5. This staffing plan was based on internal weather forecasts of greater than 250,000 outages with calls projected to begin at daybreak on December 5. Historical storm and corresponding call volume data were also factored into the initial plan. The storm hit Duke's service area earlier than forecasted and was more severe than expected. Due to these variations, at the onset of the storm, the call center was understaffed. Duke immediately modified plans and by 2 p.m. on December 5, appropriate staffing was in place to maintain target service levels for the duration of the event.

As a result of our storm assessment, our risk mitigation plans now include increased staffing earlier during the event, in anticipation of variations in timing and severity. These plans also include a more robust resource management plan during the storm and enhanced training for auxiliary agents. These changes were tested and proven during an ice storm in February 2003 that resulted in 350,000 customer outages. To assist with the need to ramp up staffing, we are developing a corporate-wide auxiliary resource plan to be activated for Level 4 – 6 storm events.

Audit Finding: While Duke's customer service technology infrastructure is generally appropriate, some of the new systems' capabilities are not fully understood, tested and utilized. (Chapter VI – 2)

Duke's Response: Customer Services has conducted several extensive assessments since the Ice Storm, and the following improvements have been implemented:

- Duke has enhanced its voice response unit to include telephone number, social security number and account number as customer identification options. This enhancement was implemented in June 2003 and worked successfully in September 2003 after Hurricane Isabel left approximately 130,000 customers without power. Seventy percent of customers were able to report their outage using the automated system; a 20 percent increase from the Dec. 2002 ice storm. This technology improvement has allowed Duke to increase its ability to handle outage calls at the critical onset of storms.

- Duke has designed and implemented an automated Spanish-language outage reporting voice response unit.

- Duke continues to improve its process for providing estimated times of restoration (ETORs). As a result of the Ice Storm assessment, during the February '03 ice storm Duke provided customers with restoration updates at a higher level of detail; at the county level and then at the circuit level. This process has enhanced Duke's ability to provide customers with information they need to make appropriate plans. It has also reduced the need for customers to call repeatedly for updates.

- Duke has increased the capacity of its toll-free phone lines, which will allow Duke's contractor to handle higher call volumes.

- Duke has enhanced our voice response technology by replacing the voice response units to provide faster outage processing capabilities.

All improvement initiatives identified in the Customer Contact Center assessment of the Ice Storm have been implemented.

Audit Finding: Duke did not provide adequate and consistent training to its auxiliary agents who handled escalated calls during the December 2002 ice storm. (Chapter VI – 3)

Duke's Response: Auxiliary agents are defined as employees from non-Contact Center functions (i.e., accounting, finance, nuclear operations, etc.), who are re-assigned to augment Contact Center staffing during a significant event. Duke disagrees with the conclusion that adequate and consistent training was not provided to auxiliary agents.

Once a need is identified, a staffing plan is developed, employees identified and schedules communicated. When these auxiliary agents report to a contact center site, they receive just-in-time training to prepare them to take outage calls.

During the December ice storm ALL groups of auxiliary agents were trained by Duke's training department. Initially, these agents were presented a job aid with the training primarily focused on how to report outages using our outage reporting tool. As the storm duration extended and customers demanded more information, Duke prepared the agents to provide more information to customers on power restoration. Information including how electricity flows from a generating station into a service location and how power is restored during outages was provided to auxiliary agents as well as regular contact center agents. Additionally, auxiliary agents were instructed to transfer all escalated customer calls to an escalated call line, which is staffed by senior level employees who were trained and provided additional support.

As a result of our storm assessment, the following enhancements were made:

- A storm communications database has been established online which includes frequently asked questions (FAQs), ETORs, how electricity flows, how outages are restored, etc.
- A storm mode checklist has been created for all trainers to use to ensure consistency.
- All non-customer service employees at the Customer Contact Center will continue to receive refresher training prior to a major storm. All non-customer service employees will continue to receive refresher training prior to a major storm. Tools will be made available for access during storm 'season' periods. This will allow non-customer service employees the ability to keep current with the outage call taking process and tools. Additionally, training will be

provided by the Customer Service training department immediately before work schedules begin during a storm event.

Audit Finding: Duke may have reduced staffing to the detriment of service levels. (Chapter VI – 4)

Duke's Response: This conclusion is not substantiated by the facts. Exhibit VI-11 of the audit report shows that telephone service levels has actually improved over the past four years from 78 percent to 82 percent. In fact, the 82 percent in 2002 would have been higher if the extraordinary Ice Storm had been excluded. While the labor component of Duke's operations was reduced in 2000 and 2001, (reference exhibit VI-10), Duke has consistently improved customer service levels by following best practices in the call center industry. Since 1999, the percent of calls answered in less than 30 seconds has moved in a generally upward positive trend. Duke has implemented several technology improvements enabling the automation of many routine customer requests, which has revised and simplified several work processes. These actions have improved Duke's effectiveness and efficiency.

Customer Services received approximately 1.6 million calls during the Ice Storm. Despite the large call volume, overall telephone response during the entire event shows that 86 percent of calls were answered within 30 seconds, and 91.53 percent of the calls to the PowerOn overflow call segment were answered within 30 seconds. This compares favorably with our normal response to customer calls.